

Ceramic Fibre Boards

“Kaowool™ Board”

Material Type: Vacuum formed boards.

Description

Kaowool™ 1260, Strong, 1400 and 1600 boards are produced from refractory fibre compositions specially developed to give rigid, self-supporting boards with excellent high temperature properties. Designed for use in applications requiring higher rigidity than blanket forms, and as a result of higher density, has improved thermal insulation properties and abrasion resistance.

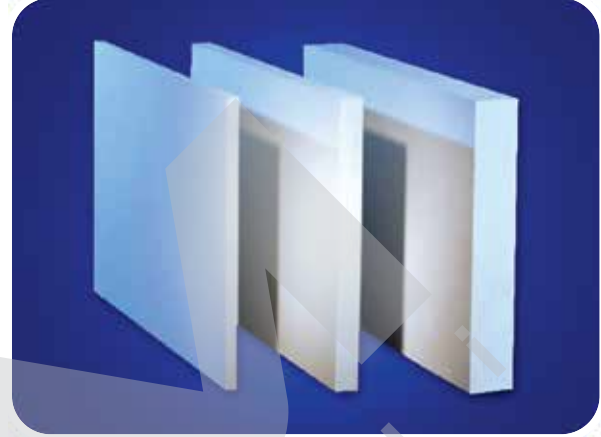
Kaowool boards are produced by vacuum forming process. This method makes it easy to produce the boards in a wide range of dimensions and if required, process them.

All board formulations contain a small amount of organic binder to improve the cold handling strength and this burns out on the first firing at approximately 200-300°C. Heat treatment can be made to burn the organic binders on special request.

Strong Board is produced by the addition of selected refractory fillers to the ceramic fibre in order to improve its mechanical properties. Strong board has two times the strength of 1260 Board, both when measured fired and unfired.

Features

- Rigid, self-supporting boards.
- Low thermal conductivity.
- High abrasion resistance.
- Low heat storage.
- High thermal shock resistance.
- Not wetted by most molten nonferrous metals, including aluminium.
- Good resistance to spalling.
- Easy to process.



Classification Temperature

From 1260 °C up to 1600 °C depending on the grade.

The maximum continuous use temperature depends on the application. Refer to our company for advice.

Applications

- Insulating applications in iron-steel industry.
- Tundish and runner applications in nonferrous industry.
- For furnace and kiln cars in the ceramic industry.
- Back-up insulating applications for the glass melting furnace and for protection of burners.
- General furnace insulation.
- Insulation applications in the petrochemical industry.

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Main Properties (23 °C / 50% Humidity)	Kaowool Board 1260	Kaowool Strong Board 1260	Kaowool Board 1400	Kaowool Board 1600
Colour	White / Tan			
Classification Temperature, °C	1260	1260	1400	1600
Density, kg/m ³	280	330	260	320
Modulus of Rupture, MPa				
Unfired	1.4	2.7	0.99	0.4
Fired 15 min. at 650°C	0.58	1.1	0.35	0.30
Compressive Strength, MPa (for reduction in thickness by 5%)	-	0.56	-	-
Loss on Ignition, %	5-7	5-7	5-7	5-7
Thermal Conductivity, W/m.K (ASTM C-201)				
200 °C	0.07	0.06	0.06	-
400 °C	0.09	0.09	0.08	0.08
600 °C	0.11	0.12	0.10	0.11
800 °C	0.15	0.16	0.13	0.14
1000 °C	-	-	0.18	0.16
1200 °C	-	-	0.23	0.19
1400 °C	-	-	-	0.25

Dimensions (mm): 1200x1000, 1000x1000, 1000x500

Thickness: From 5 mm to 150 mm.

Other thicknesses and dimensions can be supplied to special order.

Tolerances:

All boards are subject to standard tolerances.

- Thickness 6 mm to 10 mm: ± 1mm
- Thickness 15 mm: ± 1.5 mm
- Thickness above 20 mm: ± 2 mm

The boards can be further toughened by the application of a hardening solution.

